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Technology Center 2100

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 09/687,092
Filing Date: October 12, 2000
Appellant(s): BLAU ET AL.

NOV 0 4 2004
Technology Center 2100

David A. Mims
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 08/05/04.

(1)   Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2)   Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or

be directly affected by or have a bearing on the decision in the pending appeal is contained in the

brief.

(3)   Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4)   Status of Amendments After Final

No amendment after final has been filed.

(5)   Summary of Invention

The summary of invention contained in the brief is correct.

(6)   Issues

The issue on appeal has been modified as follows:

1) Are claims *1-5,7-22 and 24-30* properly rejected under 35 U.S.C. 103(a) as being

unpatentable over Mueller (U.S. Patent No. 5,673,390) in view of Hughes (U.S. Patent No.

6,275,223 B1)?

2) The rejection of claim 13 under 35 U.S.C. section 101 has been withdrawn.

3) The rejections of claims 1-12 under 35 U.S.C. section 112, second paragraph, have

been withdrawn.

(7)   Grouping of Claims

Appellant's brief includes a statement that claims do not stand or fall together and

provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8). The claims are grouped as

follows:

Group 1. Claims 1-5, 7-12, 16-22 and 24-27 stand and fall together.

Group 2. Claims 13-15 and 29-30 stand and fall together.

Group 3. Claim 28 stands alone.

(8)   ***Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9)   ***Prior Art of Record***

5,673,390	Mueller	Sep. 30, 1997
6,275,223 B1	Hughes	Aug. 14, 2001

(10)   ***Grounds of Rejection***

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.   Claims *1-5,7-22 and 24-30* are rejected under 35 U.S.C. 103(a) as being unpatentable over

Mueller (U.S. Patent No. 5,673,390) in view of Hughes (U.S. Patent No. 6,275,223 B1).

As to claim 1, Mueller teaches a method for managing compiler error messages, comprising the steps of:

displaying a compiler error message having a separate empty file to a user (errors detected by the compiler after compilation is done, col. 4 lines 7-8; Error List is a separate file, col. 5 lines 35-54 and fig. 3; and Error List can be empty if there is no error during compiling, col. 8 lines 1-6);

displaying Error List with modifying data allows a user to find a specific error in the file (col. 3 lines 35-45, and col. 7 lines 12-22, 40-45);

Although Mueller also shows modifying data in the Error List (col. 3 lines 35-45, and col. 7 line 41) and a unique key (each error message in the source file will be marked using a label, and this allows highlighting the appropriate message in the Error List, col. 9 lines 9-13), Mueller does not clearly point out that an edit panel is accepting from user as an annotation, associating the annotation with the compiler error message using a unique key, and storing the annotation in said separate empty file.

Hughes clearly teaches of editing annotation window (col. 14 lines 52-57, and fig. 18), using unique key (each annotation identifying a line number of code, col. 5 lines 42-45, col. 13 lines 52-60, and annotation window 1508 of fig. 18), storing annotations (col. 16 lines 4-5). It would have been obvious at the time of the invention that a person with ordinary skill in the art would want to have the editable annotation data of Hughes in the Error List of Mueller to allow users to easily find and edit specific errors in a program code during compiling.

As to claim 2, Mueller teaches the method of claim 1, said selectively displaying step further comprising the steps of:

displaying with said compiler error message indicia representing the existence of said

annotation (each error message will be marked with a label, col. 3 lines 35-45, col. 9 lines 10-

13);

selectively receiving from said user a request to display said annotation (displaying the

error list, col. 8 lines 25-40, and col. 9 lines 15-20); and

displaying said annotation with said compiler error message (col. 3 lines 35-45, and col. 7

line 41).

As to claim 3, Mueller in view of Hughes teaches the method of claim 1, said accepting

step further comprising the steps of:

selectively presenting to said user an edit panel (Hughes, col. 14 lines 52-57, and fig. 18);

and

receiving from said user said annotation input associated with said compiler error

message to said edit panel (Hughes, fig. 18).

As to claim 4, Mueller in view of Hughes teaches the method of claim 1, further

comprising the steps of:

selecting a compiler error message having a first key from a first file of compiler error

messages for display to said user; and associating in a second file said annotation to said selected

compiler error using a second key message in said first file (Hughes, annotation data and

matching the line numbers of the original source code and the new source code, col. 3 lines 58-

67, and col. 13 lines 52-60).

As to claim 5, Mueller teaches the method of claim 4, further comprising the steps of:

providing compiler error message identifying indicia for each compiler error message in said first file; generating annotation identifying indicia as a function of said compiler error message identifying indicia (col. 3 lines 35-45, col. 9 lines 10-13, and Hughes, each annotation identifying a line number of code, col. 5 lines 42-45, col. 13 lines 52-60, and annotation window 1508 of fig. 18).

As to claim 7, it is a combination of claims 1-2. Note the rejection of claim 1-2 above.

As to claim 8, Mueller in view of Hughes teaches the method of claim 7, further comprising the steps of:

preserving a history of compiler error messages presented to said user (Hughes, col. 6 lines 22-23);

enabling user selection for one of said compiler error messages from said history of compiler error messages (Hughes, col. 13 lines 22-36, and Mueller, Timestamp and Version, col. 11 lines 14-35); and

selectively receiving from said user an annotation to the compiler error message selected from said history (Hughes, col. 14 lines 22-36, and Mueller, displaying the error list, col. 8 lines 25-40, and col. 9 lines 15-20).

As to claim 9, Mueller in view of Hughes teaches the method of claim 1, further comprising the step of presenting said annotation to other users receiving said compiler error message (Hughes, communicate over the Network, col. 14 lines 22-26).

As to claim 10, Mueller in view of Hughes inherently teaches the method of claim 4, further comprising the step of enabling access by other users to said second file containing said annotations associated with said compiler error messages because Hughes's workstations are

communicated over the Network (col. 14 lines 20-25), and second code display window 1502

(col. 12 lines 23-37) of fig. 15 can be viewed and controlled throughout the Network.

As to claim 11, it is individually similar in scope to claim 1 above; therefore, rejected

under similar rationale.

As to claim 12, this is a system claim of method claim 1. Note the rejection of claim 1

above.

As to claim 13, Mueller in view of Hughes teaches a system for presenting compiler error

messages in a user display, comprising:

a first file for storing a plurality of compiler error messages, each said compiler error

message identified by a message key (each error message in the source file will be marked using

a label, and this allows highlighting the appropriate message in the Error List, col. 9 lines 9-13,

Hughes, col. 6 lines 22-23);

a second file for storing a plurality of annotations, each said annotation associated with a

corresponding one of said compiler error messages (Hughes, col. 4 lines 27-29, col. 14 lines 1-25

and fig. 16);

a first event driven control component for selecting from said first file and displaying a

compiler error message from said first file in said user display (Hughes, col.14 lines 27-36);

a second event driven control component for determining the presence in said second file

of an annotation associated with said displayed compiler error message (Hughes, col.14 lines 19-

21); and

a third event driven control component for displaying using a unique key said associated

annotation in said user display (Hughes, col. 14 lines 40-57, identifying a line number and

storing annotation data, col. 5 lines 42-47).

As to claim 14, Mueller in view of Hughes teaches the system of claim 13, further

comprising a fourth control component responsive to entry in said user display of an annotation

to a displayed compiler error message, for adding said annotation to said second file using a

unique key associated with said displayed compiler error message (col. 3 lines 35-45, and col. 7

lines 12-22, 40-45, Hughes, edit annotation window, col. 14 lines 52-57 and fig. 18).

As to claim 15, Mueller in view of Hughes teaches the system of claim 14, further

comprising an editor for receiving via an annotation panel in said user display said annotation

(Error List with modifying data allows a user to find a specific error in the file ,col. 3 lines 35-45,

and col. 7 lines 12-22, 40-45; Hughes, edit annotation window, col. 14 lines 52-57 and fig. 18).

As to claims 16 and 17, these are computer program product claims of claim 1. Note the

rejections of claim 1 above.

As to claim 18, this is a computer program product claim of system claim 12. Note the

rejection of claim 12 above.

As to claims 19-22, and 24-30, they are computer program product claims of method

claims 2-5, 7-11 and 13-14. Note the rejections of claims 2-5, 7-11 and 13-14 above respectively.

Allowable Subject Matter

3.   Claims 6 and 23 are objected to as being dependent upon a rejected base claim, but would

be allowable if rewritten in independent form including all of the limitations of the base claim

and any intervening claims.

The following is an examiner's statement of reasons for allowance in combination with

other claim limitations:

The prior art of record fails to teach:

The step of upon presenting a compiler error message from said first file, determining the

presence of a corresponding annotation in said second file using said second key; responsive to

the presence of said corresponding annotation, displaying with said compiler, error message

indicia representing the existence of said annotation; selectively receiving from said user a

request to display said annotation; and

responsive to receiving the request from said user, displaying said annotation with said

compiler error message using said second key.

(11)   Response to Argument

A.   35 U.S.C. Section 101:

Appellant has argued that there is no requirement for claim 13 to contain a control

component or readable medium for claim 13. After reviewed the language of claim and the

specification, the Examiner agrees with the Appellant when providing "a system for compiler

error messages in a <u>user display</u>" which represents a GUI; therefore, the U.S.C. 101 rejection has

been withdrawn.

B.   35 U.S.C. Section 112, second paragraph:

After reviewed the language of claim and the specification, the Examiner agrees with the

Appellant to drop U.S.C. 112 rejection of claims 1-12.

I.   In response to Appellant's argument to Group 1 (Claims 1-5, 7-12, 16-22, and 24-27).

1. Appellant has argued that Hughes fails to show annotations for errors generated from

compiled source code, storage of those annotations in a separate file, or the use of a unique key

to store the annotations in the separate file. The Examiner strongly disagrees with the Appellant.

Appellant's attention is directed to col. 15 lines 26-38, sic, "the annotation may indicate that an

error in a line of source code does significantly affect the operation of a portion of source code as

a whole (an operation affecting annotation). During the code inspection process, the developers

are especially interested in lines of code containing errors which affect the operation of the

source code as a whole. By identifying source code lines having errors which identify operations

of the source code as a whole, using the specific processes described herein a significant

advantage may be obtained compared to prior art source code development techniques. If a line

of source code containing an operation affecting error can be identified during a code inspection

process." The code inspection process clearly represents the meaning of compiling a program

code to be able to determine the errors that affect the operation program code by creating a

separate annotation for each program code error (e.g., col. 5 lines 42-45); and the developer can

enter annotation data to a separate file (e.g., col. 14 lines 6-19 and fig. 17); moreover, Hughes

also shows a line numbers (line numbers of a program code which may contain errors) using to

determine the annotation to be viewed/retrieved/edited (e.g., col. 14 lines 53-57 and figs. 15, 18-

19) so the <u>line number</u> is clearly an identification/ID of the annotation or a unique key for

uniquely defined the annotation.

2. Appellant has argued that both references show no suggestion to combine or teaching

of displaying a compiler error message having a separate empty error file into which an

annotation is associated and stored. The Examiner does not agree. Mueller clearly mentions the

method of embedding error messages into a source program and creating a new source program

include <u>comments</u> placed next to applicable error (col. 1 lines 37-43); and Hughes teaches the

benefit of having the separate annotation file (see 1 above) for each line of code with error to

help the user to indicate a defecting operation level of the program code (col. 15 lines 20-32).

Moreover, Mueller and Hughes are in the same field of technology; therefore, the Examiner

recognizes that obviousness can only be established by combining or modifying the teachings of

the prior art to produce the claimed invention where there is some teaching, suggestion, or

motivation to do so found either in the references themselves or in the knowledge generally

available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.

Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it is

well known and obvious for a person with ordinary skill in the art would want to have the

editable annotation data of Hughes in the Error List of Mueller to allow users to easily find and

edit specific errors in a program code during compiling.

3. Appellant has argued that there is no teaching in either of the references that would

suggest the generation of a unique annotation key. The Examiner does not agree. Hughes clearly

shows a <u>line numbers</u> (line numbers of a program code which may contain errors) using to

determine the annotation to be viewed/retrieved/edited (e.g., col. 14 lines 53-57 and figs. 15, 18-

19) and each annotation identifying a line number of code (col. 5 lines 42-45, col. 13 lines 52-60, and annotation window 1508 of fig. 18), so the line number is clearly an identification/ID of the annotation or a unique key for uniquely defined the annotation.

II.   In response to Appellant's argument to Group 2 (Claims 13-15 and 29-30).

Appellant has argued that neither of the references teaches a GUI for displaying using a unique key an associated annotation. The Examiner does not agree. Hughes clearly shows that both figs. 15 and 18 provide the GUI for the user to interact with the windows and the annotations (col. 12 lines 58-61, and col. 13 lines 53-60), and using the Edit Annotation windows (fig. 18) to modify the text describing the problem or comment relating to the identified lines on code (col. 14 lines 53-58 and fig. 18). Hughes also teaches a line numbers (line numbers of a program code which may contain errors, see fig. 18) using to determine the annotation to be viewed/retrieved/edited (e.g., col. 14 lines 53-57 and figs. 15, 18-19) and each annotation identifying a line number of code (col. 5 lines 42-45, col. 13 lines 52-60, and annotation window 1508 of fig. 18), so the line number is clearly an identification/ID of the annotation or a unique key for uniquely defined the annotation.

III.   In response to Appellant's argument to Group 3 (Claim 28).

Appellant has argued that there is no teaching or suggestion in any of the references of the concept of selectively displaying an annotation with a compiler error message and causing a computer to effect presenting an edit panel in the GUI for user entry of new or modified annotations. The Examiner does not agree because this argument can be answered by similar explanation as Group II above.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Truc T. Chuong
Patent Examiner, AU 2179
October 29, 2004

Conferees
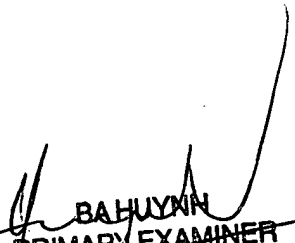SPE. Joseph Feild
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